

CLAIMS

1. A curable composition comprising:

an oxyalkylene polymer (A) having a number-average
molecular weight of 16,000 or more, the oxyalkylene polymer
5 (A) containing a silicon atom-containing functional group
crosslinkable by formation of a siloxane bond;

a vinyl polymer (B) containing a silicon atom-
containing functional group crosslinkable by formation of a
siloxane bond; and

10 an oxyalkylene polymeric plasticizer (C) having a
smaller molecular weight than that of the polymer (A).

2. The curable composition according to Claim 1, wherein
the oxyalkylene polymer (A) is at least one selected from
the group consisting of polyethylene oxide, polypropylene
15 oxide, propylene oxide-ethylene oxide copolymers, and
polybutylene oxide.

3. The curable composition according to Claim 2, wherein
the oxyalkylene polymer (A) is an oxypropylene polymer.

4. The curable composition according to any one of Claims
20 1 to 3, wherein the backbone chain of the oxyalkylene
polymer (A) is a polymer prepared using a double metal
cyanide complex catalyst.

5. The curable composition according to any one of Claims
1 to 4, wherein the backbone chain of the oxyalkylene
25 polymer (A) is substantially a linear polymer.

6. The curable composition according to any one of Claims 1 to 5, wherein the reactive silicon group of the oxyalkylene polymer (A) comprises one silicon atom and two hydrolyzable groups bonded to the silicon atom.

5 7. The curable composition according to Claim 6, wherein the reactive silicon group of the oxyalkylene polymer (A) is a dimethoxymethylsilyl group.

8. The curable composition according to any one of Claims 1 to 7, wherein the reactive silicon group is present at a
10 terminus of the molecular chain of the oxypropylene polymer (A).

9. The curable composition according to any one of Claims 1 to 8, wherein the vinyl polymer (B) contains a monomeric unit derived from an alkyl acrylate and/or alkyl
15 methacrylate.

10. The curable composition according to Claim 9, wherein the vinyl polymer (B) contains 70% by weight or more of the monomeric unit derived from the alkyl acrylate and/or alkyl methacrylate.

20 11. The curable composition according to any one of Claims 1 to 10, wherein the vinyl polymer (B) has a number-average molecular weight of 5,000 to 30,000.

12. The curable composition according to Claim 11, wherein the vinyl polymer (B) has a number-average molecular weight
25 of 10,000 to 20,000.

13. The curable composition according to any one of Claims 1 to 12, wherein the oxyalkylene polymer (A) and the vinyl polymer (B) are synthesized separately.

14. The curable composition according to Claim 13, wherein the vinyl polymer (B) is prepared by polymerization in the presence of the oxyalkylene polymeric plasticizer (C), and the oxyalkylene polymeric plasticizer (C) used during the polymerization is partially or entirely used as a plasticizer of the curable composition.

15. The curable composition according to any one of Claims 1 to 14, wherein the ratio, by weight, of the oxyalkylene polymer (A) to the vinyl polymer (B) is 90/10 to 10/90.

16. The curable composition according to any one of Claims 1 to 15, wherein the oxyalkylene polymeric plasticizer (C) has a number-average molecular weight of 500 to 15,000.

17. The curable composition according to Claim 16, wherein the oxyalkylene polymeric plasticizer (C) has a number-average molecular weight of 1,000 to 8,000.

18. The curable composition according to any one of Claims 1 to 17, wherein the amount of the oxyalkylene polymeric plasticizer (C) used is 5 to 150 parts by weight based on 100 parts by weight of the total amount of the oxyalkylene polymer (A) and the vinyl polymer (B).

19. The curable composition according to Claim 18, wherein the amount of the oxyalkylene polymeric plasticizer (C) used

is 10 to 120 parts by weight based on 100 parts by weight of the total amount of the oxyalkylene polymer (A) and the vinyl polymer (B).

20. The curable composition according to Claim 19, wherein
5 the amount of the oxyalkylene polymeric plasticizer (C) used is 20 to 100 parts by weight based on 100 parts by weight of the total amount of the oxyalkylene polymer (A) and the vinyl polymer (B).

21. The curable composition according to any one of Claims
10 1 to 20, further comprising a second plasticizer in addition to the oxyalkylene polymeric plasticizer (C).

22. The curable composition according to Claims 21,
wherein the ratio, by weight, of the oxyalkylene polymeric plasticizer (C) to the second plasticizer is 90/10 to 10/90.

15 23. The curable composition according to any one of Claims 1 to 22, further comprising a flaky or granular material with a diameter of 0.1 mm or more.

24. The curable composition according to any one of Claims 1 to 22, further comprising balloons.

20 25. The curable composition according to Claim 24, wherein the balloons have a particle size of 0.1 mm or more.

26. The curable composition according to any one of Claims 1 to 25, wherein the curable composition is used as a sealant for joints of siding boards.

25 27. The curable composition according to Claims 26,

wherein the siding boards are ceramic siding boards.

28. A method for sealing ceramic siding boards comprising applying the curable composition according to Claim 27 as a sealant to the siding boards, and curing the curable

5 composition.